Dr. Bruno Rossi Dept. Physics Mass, Inst. Technology Cambridge, Mass.

## Dear Bruno:

I've just returned from Nice and the COSPAR meeting there. I hope no one takes too seriously the fabrications of the newspaper accounts: there was considerable invention in them. Enclosed is the ms.-- in fact I rather hope you may have time to look at it, and would be especially interested to hear any comment on pp. 5-6.

In fact, I wonder if this question has any bearing on the composition of <u>primary</u> cosmic ray particles. Can you visualize the presence among these of any small molecule-ions (e.g. CH+)? These presumably would not survive impact with the terrestrial atmosphere, (perhaps even the solar) but should they be looked for outside? If the cosmic rays are particles accelerated from interstellar gas, they should reflect its chemical composition subject to whatever degradation they suffer from energetic impacts.

I understand you have been appointed to PSAC, which doubtless merits some consolations as well as approbation. I hope one of your minor preoccupations here will be the validity of the Man-in-Space program. I am sure you can judge as well as I do how the majority of our scientific colleagues feel about this, and you must know my own position. (Apart from the weakness of Mercury as science, I am deeply worried that it may prove to be a terrible political blunder as well, especially if the mission fails as can hardly be forsworn. In any case are we justified in spending so much money on a race where the odds of priority are so low?) But my main feeling is that if Mercury is just a stunt, it is shameful for us to let it dominate our space program—it will certainly give us no credit in the perspective of history.

Yours cordially,

Joshua Lederberg